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Lee, Frederic S.

A statement concerning the New
York Botanical Garden

[CONFIDENTIAL]

A STATEMENT CONCERNING THE NEW YORK BOTANICAL GARDEN

PREPARED BY THE PRESIDENT OF THE GARDEN
FOR THE INFORMATION OF THE
BOARD OF MANAGERS

APRIL, 1923

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SINCE assuming the presidency of the New York Botanical Garden on January 8, 1923, I have endeavored to make a careful study of the Garden's present condition and its future needs and possibilities. In doing this I have conferred with many members of the Board of Managers, the Scientific Directors, the Director-in-Chief and other members of the scientific staff, members of the Women's Auxiliary and of the Corporation, other members of the Garden, and certain individuals who are interested in but not connected with the institution. I have also visited the Missouri Botanical Garden, St. Louis, the Department of Botany of the Field Museum of Natural History, Chicago, the Arnold Arboretum, Boston, and the Brooklyn Botanic Garden, and have conferred with their officials. In all with whom I have talked, without exception, I have found a cordial readiness, not only to discuss the Garden's affairs, but to offer helpful suggestions. I beg to submit herewith the results of such cooperative study.

The purposes of the Botanical Garden are succinctly and well stated in Section 1 of the Act of Incorporation, passed in 1891, as follows: Various named persons and their successors "are hereby constituted and created a body corporate by the name of the New York Botanical Garden, to be located in the city of New York, for the purpose of establishing and maintaining a botanical garden and museum and arboretum therein, for the collection and culture of plants, flowers, shrubs and trees, the advancement of botanical science and knowledge, and the prosecution of original researches therein and in kindred subjects, for affording instruction in the same, for the prosecution and execution of ornamental and decorative horticulture

Purposes of the Garden

and gardening, and for the entertainment, recreation and instruction of the people." These words reveal a two-fold duty on the part of the Garden—a duty to the lay public and a duty to botanical science. Within the limit of its resources it has endeavored faithfully to carry out these purposes.

The Garden's resources are derived from membership fees, special contributions, the income of its endowment,

**Comparison of certain
New York institutions**

and an annual appropriation by the city. In these and certain other respects it is similar to

three other institutions of the city: the Metropolitan Museum of Art, the American Museum of Natural History, and the New York Zoological Society, which maintains the Zoological Park and the Aquarium. These institutions, although they are situated in the City of New York and look chiefly to the citizens of New York for their financial support, have made themselves institutions of national interest and national importance. Certain statistics regarding the four institutions follow, the figures being given in approximate numbers and as of January, 1923.

<i>Institution</i>	<i>Endowment</i>	<i>Member- ship</i>	<i>City Approp- riation</i>	<i>Annual Expendi- ture</i>
Metropolitan Museum of Art	\$20,840,805	11,390	\$742,922	\$833,000
American Museum of Natural History	10,000,000	6,570	445,349	950,000
New York Zoological Society	1,265,000	2,600	323,741 ²	359,000
New York Botanical Garden	1,215,213 ¹	1,600	189,808	274,189

¹ \$94,000 borrowed from endowment fund for current expenses.

Aquarium	\$59,226
Zoological Park	264,515
	\$323,741

This table shows that the Botanical Garden stands at the bottom of the list in all of the features presented—endowment, membership, City appropriation, and annual expenditure. Moreover, I find that it does not hold, among either the American public or American botanists, the commanding position of unquestioned leadership which the three other named institutions hold in their respective fields. That it ought to gain and maintain such leadership is widely recognized and cannot, I believe, be rationally denied. I shall endeavor here to indicate how such a position may be achieved, and shall discuss, first, the relations of the Garden to the public and, secondly, its scientific work—although these two features are alike in importance and constantly interlock.

A. The Relations of the Garden to the Public

It should never be forgotten that it is the lay public for whom, largely, the Garden exists and to whom it must look, largely, for its support. Its duties to the public consist, in brief, in affording instruction, recreation and entertainment by means of its collections of living plants, shrubs and trees, by "the prosecution and exhibition of ornamental and decorative horticulture and gardening," by its museum, its publications and its lectures. It is estimated that some six to eight million people pass through the Garden annually, of whom the majority probably are mere passing motorists but a considerable number, especially on Sundays and holidays, spend their time on foot within the Garden's grounds observing its various features. Notwithstanding the large number of its visitors my inquiries reveal, among intelligent and influential people who love the beauties of nature and the things which plant life has to offer, an appalling

amount of ignorance of the Garden and its objects, and a feeling that it does not offer sufficient attraction to warrant their becoming interested in it. Yet it is this intelligent, influential mass of the people from whom the Garden ought to expect its main cooperation and support. How can their interest be secured?

First of all, the Garden needs to be improved esthetically; from all sides I hear this urgently emphasized. In

Esthetic improvement natural features, in the variety of its topography and of its soil,

in its combination of woods and open spaces, in its winding river and its ponds, it is unrivalled. Happily these natural features have been largely maintained in the transformation of the four hundred acres, at first into a park and later into a botanical garden. But we have never made any large effort to add to the natural features the best that modern landscape architecture has to give; our activities toward esthetic development have been restricted, sporadic, unrelated to one another, and without adequate advice from those best fitted to know. Our entrances, our driveways, our walks, our plantations, our combinations of flowers, shrubs and trees, our opportunities for long vistas and broad reaches, do not offer to those who are familiar with such landscape features the superior attractions which compel admiration.

One of the most striking evidences of a growth of the love of the beautiful in this country during the past

Formal gardens quarter of a century is the increasing interest in private gar-

dens. All over the country, innumerable more or less formal gardens have been made, large and small, and garden clubs have been formed, the members of which meet together for inspecting gardens and discussing garden problems. The Garden Club of America has brought together most of these local clubs and has thus

aggregated the widespread interest. It would redound to the benefit of the New York Botanical Garden if it should recognize this wide national movement and should endeavor to aid it. This could be done by the installation of formal gardens and special garden features, by frequent and changing exhibits adapted to interest garden lovers, and by the giving of information and advice in solving garden problems. In this direction we have made a promising beginning in our rose garden, and the success of our several exhibitions of tulips, gladioli, irises and dahlias is gratifying and prophetic. But our efforts should be more comprehensive than these.

For example, there is more or less open space to the south and east of the Lorillard Mansion, which affords an excellent opportunity for the installation of a formal garden, considerable in extent and with varied garden effects, without serious interference with the natural features of the plot. This might require the removal of the unsightly stables of the Park Department. The Lorillard Mansion itself, a building of little historical value, erected during one of the most inartistic periods in the development of American architecture, was partially burned on March 26. It is now roofless, its upper stories are gutted, and it must be restored by arrangement with the City. It could be made a valuable aid in fostering the garden spirit by altering its architecture without and within, installing in its rooms tasteful furnishings, offering adequate facilities for the entertainment of members and other visitors, exhibiting pictures and plans of public and private gardens, and inducing local garden clubs to hold occasional meetings there. In such ways there might be established an esthetic and social center for bringing to the Garden those who are best fitted to appreciate and help it.

The Lorillard
Mansion site

Besides such a formal garden of comprehensive scope the Botanical Garden might well be made serviceable to

Model gardens garden lovers by constructing

model gardens of smaller size,

and separate garden features adapted to specific needs. Such might include, for example, gardens for a city back-yard and for a small suburban home, the possible uses of vines in decoration, decorative window boxes, ornamental borders, schemes for combinations of flowers and shrubbery, etc. The pregnant suggestion was made by one of the members and received with enthusiasm by all to whom it was mentioned that the Botanical Garden reproduce on a proper scale and exhibit during the coming summer one of the prize-winning designs for a scheme for the ornamental planting of a small suburban lot with house and garage, which was offered in the competition conducted by the Garden Club of America at the recent Spring Flower Show of the Horticultural Society of New York. Many other ways might be conceived by which the Botanical Garden might make its grounds more attractive and at the same time more serviceable to the public. In displaying the esthetic possibilities of plant life it ought to lead, and not follow. But no extension of its features along these lines should be entered upon without the advice of a landscape architect of imagination and taste.

Our greenhouse collections are extensive, varied, of great value and great botanical interest. It is the botanist,

Greenhouse collections indeed, looking for abundant species, to whom they chiefly

appeal. They may often, too, attract the untutored and uncritical in crowds, but to the intelligent layman, familiar with the art of greenhouse culture and with the educational and esthetic possibilities of greenhouse displays, they are disappointing. Many of the houses are much overcrowded; striking treasures of the collection are

hidden from clear view; the educational value of labels is not adequately utilized; and the horticultural displays are meager. I am informed, too, by competent authorities that some of our collections, notably that of orchids, are seriously degenerating. In all these respects the Botanical Garden should be a leader, both in methods of greenhouse culture and in the art of greenhouse display. For this there are needed a head gardener of wide experience and of superiority, and a gardening staff of skilled subordinates.

The museum of the Garden contains three collections: the collection of fossil plants, the systematic collection of existing plants, and the collection illustrating the economic uses of

The museum

plants. However laudable this conception of a botanical museum, however valuable the collections, and however instructive the exhibits, a walk through the museum gives one, unless he be a botanical specialist, the impression that the collections consist mainly of dead "specimens," from one to another of which the eye wanders without seeing striking features calculated to rivet the attention. Yet during the past quarter of a century the museum as a factor in education has progressed far from the earlier idea of exhibiting dead "specimens" alone; it shows graphic and artistic groupings of related things, with representations of their natural surroundings, making dead objects appear as living things, full of the beauties and interests of living nature. The fame of the bird and mammal groups of the American Museum of Natural History and of the Egyptian exhibits of the Metropolitan Museum of Art have spread throughout the country and have created an interest in such things in thousands of observers. If we had on our staff a museum specialist, trained in the museum art of the day and possessing imagination, he would show us, instead of a few dried specimens of the cotton plant, a field of growing cotton;

instead of lumps of fossil plants, a picture of how plants are transformed into coal; instead of lifeless sage-brush, a bit of an American desert with its cactuses and other varied flora; a characteristic bit of the Everglades could be transported from Florida to the Bronx;—the possibilities of such graphic presentation of the enticing botanical features of the earth are endless.

By such measures for the esthetic improvement of the Garden not only could it be made a greater force in education,

Flower shows but the number of its friends could be increased and

greater interest in it could be stimulated among the kind of people upon whom it must depend for support. There are other ways by which the attainment of these results could be aided. Just as desirable as special outdoor horticultural features, are special indoor displays. The central display house of Greenhouse Range, No. 2, affords an opportunity for holding during the winter months, when outwardly the Garden is least interesting, a succession of flower shows, the exhibits being supplied from the Garden's own greenhouses and each show being devoted to a special group of flowers, with its varieties and hybrids, or a special floral topic of public interest, as is done with great success by the Missouri Botanical Garden. Such displays should be veritable works of art, esthetically designed, showing the art of floriculture at its best. If it once became known that such shows were superior in quality and full of suggestions for flower lovers and flower growers, they would not lack appreciative and grateful visitors. Again, the Spring Flower Show of the Horticultural Society of New York is visited by a large number of persons—in 1922 by nearly 70,000, coming from a wide range of the country—and thus offers an excellent opportunity to reach a large public interested in plant life. It is an opportunity that ought

not to be neglected by the Garden and it could be utilized by an annual exhibit at the Flower Show adapted to present some of the best of the Garden's features. Moreover, the value to the Garden of the lesser flower shows offered by the Society at the Garden during the summer months could be greatly increased by the erection of a simple, but suitable, permanent one-story exhibition building of tasteful architectural design. There is reason to believe that the cooperation of the Horticultural Society in such a building could be secured.

The monthly Journal of the Garden constitutes the one regular printed means of communication between the Garden and its members. I find
a widespread feeling that the The Journal Journal is too technical in character and too narrow in scope to interest readers except botanists and that it thus fails to attract the great mass of the Garden's members. It is a well-known fact that a technical scientist is rarely capable of writing in a style adapted to lay readers. The Journal does not need enlargement; but it does need, I believe, a considerable change in the character of its contributions and their style of presentation, more and finer illustrations, and an attractive cover design. With such changes it might be given a value, now almost wholly wanting, in creating a continued public interest in the Garden's activities. Such changes would probably require the employment of a lay editor. The full-time services of such an appointee might be made a valuable asset for the Garden, not only in editing the Journal, but in securing in other ways the legitimate publicity of which the Garden is in much need.

In its Women's Auxiliary the Garden possesses great possibilities for aid which have not been adequately utilized. This is especially true
in developing the esthetic aspect Women's Auxiliary of the Garden's grounds. In talking with members of the

Auxiliary I have found them fertile in suggestion and ready to act in whatever ways their aid would be welcomed in raising the Garden's standard in its relations to the public. They should be given specific tasks to perform and specific responsibilities to assume. For example, if the suggestion to develop the Lorillard Mansion and its contiguous land as a social and esthetic center should be approved, why should not the carrying out of the project be delegated largely to the Auxiliary? Again, since the Garden Club of America is largely an association of women, it would seem appropriate that our Women's Auxiliary be asked to organize a plan of cooperation between the Garden and the Club. The Garden as it is does not invite women's pride and enthusiasm; the Garden as it might be could be assured of their warm and eager and helpful cooperation. In this connection it has been questioned whether the term "Women's Auxiliary" might not advantageously be replaced by one that is more in accord with the present-day conception of woman's work.

The Garden, open to the public on all sides and at all hours of the day and night, has never had adequate police

Uniformed guards protection and it frequently suffers from this lack. Fires have occurred, flowers are picked, blooming plants and bulbs are dug up, and other depredations on its collections occur, while assaults on human beings and robberies have been committed within its borders. Policemen are seen within it only sporadically. Besides its gardeners, there is maintained by the Garden during the day a special force of five guards, of whom four patrol the four hundred acres and one is on a fixed post, but none of whom have police power. On Sundays and holidays this force is increased to ten. The night force, also maintained by the Garden, consists of six men, of whom five guard

the buildings and one patrols the grounds. This force of guards, day or night, is insufficient at present and would be very seriously insufficient if the additional plantations advocated above should be established. It is doubtful whether the City will ever be willing to provide a sufficient police force to prevent lawless acts within the Garden's precincts, and in such case we must look to our own resources for needed protection. We should have a considerably augmented, organized force of guards, uniformed and preferably with powers of arrest, if possible, to patrol the grounds day and night.

B. The Scientific Work of the Garden

The original plan of the Garden very wisely included among its purposes "the advancement of botanical science and knowledge, and the prosecution of original researches therein and in kindred subjects." In accordance with this plan original scientific investigation has been fostered from the first and botanical literature has been enriched by extensive publications. With certain occasional and noteworthy exceptions investigation has been chiefly within the field of systematic botany and plant geography, and has concerned itself with the collection of plants growing in this country, the West Indies, South America and elsewhere, the identification of already known or hitherto undescribed species, and the preservation of the specimens for future reference and study. The herbarium has become one of the noteworthy collections of the world, and its maintenance and extension should be encouraged as a legitimate and praiseworthy undertaking of a botanical garden possessed of broad aims.

But systematic botany, although time-honored, although exclusively dominant in the earlier years of botanical research, has now become only one of several

aspects of a broad and actively pursued science of plant biology. It represents the usual observational stage in the evolution of a science; most of the other aspects employ, in addition to observation, the method of experiment. It deals chiefly with the physical features of the adult plant, its static features; they deal with its life processes and its relations to its environment, its dynamic features. If the New York Botanical Garden is to win a place of broad leadership in the scientific world it must share in the advance along other than systematic lines; it must pursue its investigations into what are now generally regarded as the more pregnant problems of botanical science. In its large collections, its varied topography, and its opportunities for propagation, together with its freedom from the political influences and the demand for immediate practical results which might easily hamper a state-controlled Experiment Station, the Garden is well fitted to undertake such kinds of investigation. Its present collections, indeed, afford already abundant material for research into certain problems other than taxonomic. Most of the newer problems, which are of varied nature, may be included, in general, within the scope of plant physiology and plant pathology.

It has been suggested that one very important line of research within the sphere of plant physiology which the

Plant physiology Garden might profitably under-

take and in which little advance has heretofore been made, relates to the nutrition and growth of forest and ornamental trees. Data acquired on this topic would contribute to the subject of plant nutrition in general, and specifically to the problem of the maintenance of the Garden's own plantations and of city shade trees. The problems of plant life in relation to the chemistry and biology of the soil offer almost

endless opportunities for investigation. The Garden is about to undertake one very promising research into some of these problems of trees, namely, the study of the hemlocks in relation to their environmental conditions, both at the Garden itself and simultaneously at Ithaca, Syracuse and New Haven. The physico-chemical relations of plant protoplasm and the plant cell, the topic of heredity in plant life, and many other physiological problems, are crying for investigation.

Plants are perhaps as much subject to disease as are human beings and the lower animals, and the economic aspects of their maladies are doubtless of as great importance

Plant pathology

to the human race as are its own physical ills. Plants, like men, are attacked by insects, fungi and bacteria; they are subject to nutritional disturbances, malformations and injuries; their organs behave improperly; and their physiological processes go wrong. In recent years the experimental science of plant pathology has achieved a prominent place within botanical science. While much that has been learned so far concerns specific plant diseases and methods of protecting plants from them, plants offer peculiar opportunities for the study of the broader aspects of disease processes in general, processes which are exhibited by both plants and animals alike. Such topics include susceptibility, immunity, the interrelations of host and parasite, etc., and the belief is now growing that the experimental investigation of such topics in plants will throw light upon the disease processes of animals and man. With the various prominent medical institutions of New York now endeavoring to make the city a great center for medical investigation, it seems fair to urge that the Botanical Garden be enabled to contribute a share in this work of vital importance to mankind.

The extension of the scientific work of the Garden along these experimental lines related to the life processes of plants would require the appointment to the scientific staff of at least one physiologist, one experimental pathologist, and one chemist. These should be men of high scientific standing, promise and vision, capable of originating and pursuing successfully their various researches, and they should be allowed freedom of action. They should be aided by competent subordinates, both trained persons of scientific promise and less highly trained laboratory assistants.

One of the duties of a public institution in which scientific research is prominent among its activities is to offer

Special investigators opportunities for research to others than the immediate members of its staff. It is to the credit of the Garden that in the past it has recognized this duty and has placed its facilities at the disposal of many persons who have come to it from other institutions for the purpose of investigating specific problems of systematic botany. With the proposed extension of its scientific work its attractiveness for special investigators ought to be increased many fold. If the Garden should become known as a place in which the highest types of experimental investigation into the insistent botanical problems of the day could be freely pursued under stimulating leaders, it would have no lack of special investigators. It would bring workers, not only from this country, but from European countries—workers who would spread a knowledge of the Garden among the world's botanists and add to its prestige. In doing this it would contribute both to the development of a broad botanical science and to the broad education of the younger botanists who are destined to take the places of those who must ultimately retire from active work.

For the prosecution of such experimental work the Garden does not now possess adequate quarters; additional laboratory space would be required. The fundamental

Laboratory

requisite of laboratory rooms is abundant light, and preferably light from the north. A laboratory for experimental botany requires also greenhouse facilities immediately at hand. The original architectural plan of the museum building included the construction of a wing extending from each end of the present building toward the north and the completion of a quadrangular court by means of a fourth structure extending east and west and connecting the north ends of the two wings. This plan contemplated the placing of all the scientific work under one roof. I believe that there are serious objections to the inclusion in such a building of the quarters for experimental work. In the first place, all the rooms facing the court would have inadequate lighting; the east and west exposures of the two wings would not be the best; and the structure on the north side of the court would offer its best facilities on the north side only. In the second place, greenhouses would have to be built on the roof of the building, and, although this would be possible, it is doubtful whether it would be the best location during the rigors of our winters. In the third place, both the herbarium and the library are even now hampered by reason of inadequate space, and need, moreover, additional provision for continual future growth; and the proposed extension of the museum can only be made possible by enlarged quarters. It may, therefore, well be considered whether it would not be wise to have the wider vision and reserve the museum building for herbarium, library and museum, together with the working-rooms required for their maintenance, and for the administrative offices. In such case an additional building

would be needed for all the varied requirements of the proposed experimental work, and such a building might most profitably be located in close proximity to the propagating houses, which would afford abundant greenhouse facilities. With the inclusion in the laboratory building of a well selected reference library the slight disadvantage of removal from the main library could easily be compensated.

It is a regrettable fact that in the past the Garden has not been markedly generous to its scientific staff in the matter of salaries. The following table presents the salaries now paid by the four representative New York institutions, previously mentioned.

Title of Officer	SALARIES			
	Metro-politan Museum	Natural History Museum	Zoological Park	Botanical Garden
Director	\$11,000	\$9,500		\$10,000
Assistant Director	7,500	7,000 ¹	\$6,000 ²	5,000
Head Curator	None	None	None	5,000
Curator	6,000	5,300 — 5,500	6,000	3,500 — 4,000
Associate Curator	None	2,640 — 4,000	None	2,040 — 2,700
Assistant Curator	2,200 — 3,750	1,992 — 3,140	None	None

¹ Executive Secretary.

² Assistant to Director.

It is here seen that, with the exception of the Director-in-Chief, the salaries paid by the Garden are the lowest

in the list. Yet many of the members of the staff are as worthy and as eminent in their professional standing as are those of the other institutions. I present below the salary list of Columbia University, which may be considered as a fair criterion of recompense for service not unlike that performed by the members of the Garden staff.

<i>Officer</i>	<i>Salary</i>
Professors	\$6000 - 8000
Associate Professors	4500 - 5000
Assistant Professors	3000 - 3600
Instructors	2000 - 2400
Assistants	1000 - 1200

In very recent years many colleges and other institutions have increased the salaries of their staffs in accordance with the increased cost of living, but it is evident, I think, that the Garden has not met its moral obligations in this matter and that a reexamination and readjustment of salaries is a great desideratum.

The matter of salaries is clearly linked with another matter of moral obligation, namely, that of pensions. A pension system has now become

Pensions

almost a sine qua non of institutions which encourage long and faithful service from their employees, and the Garden has never made any provision for the old age of those who have helped to make it. Some of our staff are now advanced in years and, with inadequate compensation, have given the best of their life's energies to the service of the Garden; and the process is being repeated by others now younger. A careful study of this subject should, I believe, be made, and a pension system be devised which would remove this cause of opprobrium.

In certain other ways the Garden might be materially

assisted. Small funds insuring a constant appropriation for the following purposes are desirable: to insure the

Other needs of the Garden proper maintenance of the proposed additions to the plantations, to maintain the herbarium properly, to assist the work of exploration, to provide for the necessary constant increase of the library, to provide additional lectures, and to maintain properly the proposed new laboratories.

There are certain features of Garden procedure and Garden policy that have been brought to my attention

Changes in Garden procedure and policy from different sources, changes in which might conceivably redound to economy, efficiency

and the prestige of the institution, while not requiring materially increased expenditures. For example, it is believed that greater economy in the purchase of supplies might be secured by a readjustment of the functions of the administrative offices at the Bronx and of the Treasurer's office, in accordance with a more modern and more efficient system of financial administration. The Garden, too, might advantageously cultivate closer relations of amity with other botanical institutions of the country—our position at present is one that savors of isolation. This applies not only to scientific institutions, but, as already indicated, to garden clubs and other organizations of less technical character. The Garden should assume a place of cooperation and leadership in all the large botanical movements of the country. The members of our scientific staff should be encouraged to attend, to a greater extent than at present, the meetings of the national botanical societies and to report there the results of their investigations. The Garden could well afford to reimburse its representatives for travelling expenses incurred in such activities.

C. The Need of Increased Funds

It is obvious that most of the advances suggested above would involve the Garden in increased expenditures, and all together would require markedly increased funds. It is not probable that the City can be induced at present to increase materially its annual appropriation, and in such case recourse must be had to private gifts. In this connection it should be borne in mind that increasing the attractiveness and the value of the Garden to the lay public is one of the surest ways of aiding, not only in the extension of these features, but in the promotion of scientific work. Of the suggested features some might be most readily secured through special gifts, others, requiring annual expenditures, through added endowment. I venture to give below estimates of the cost of the several items, as they seem to belong naturally to the one or the other of these two groups. While differences of opinion may be expected to arise in regard to the correctness of these estimates, in making them I have had the advice of various professional men, presumably competent in their respective fields of interest.

In the group of special gifts I would place the following with estimates of their cost.

Special gifts

Laboratory building	\$100,000
Equipment for laboratory building	15,000
Formal garden near Lorillard Mansion	20,000
Exhibition House for summer flower shows	25,000
West wing of Museum Building and equipment .	300,000
Comprehensive plan of development of grounds	?

The following list of items, together with estimates of their expected annual requirements, comprises those proposed improvements which might best be taken care of through added endowment.

Pension system for younger members of staff	\$5,000
Increased salaries to existing staff	25,500
Salaries to additional members of scientific staff	52,000
Annual appropriation for added scientific work	2,500
Additional maintenance of laboratory	6,000
Additional maintenance of plantations	6,000
Additional maintenance of museum	5,000
Exploration	5,000
Additional herbarium supplies	650
Library additions	2,000
Added publications by the Garden	2,500
Lectures	1,000
Wages of additional staff of uniformed guards	5,000
Unforseen expenditures required in proposed improvements	6,850
Total	\$125,000

Additional endowment required for above \$2,500,000

The endowment of the Garden at its beginning was \$258,845. In the twenty years that elapsed between 1898 and 1918 this was increased by the addition of \$300,000. Since then the fortunate gift of the Sage Fund has been the chief means of raising the endowment to its present figure of approximately \$1,200,000. During this period of twenty-five years the Garden has not asked the public for any large increase in its funds, either in endowment or in special gifts. Is not the time now ripe to make such an appeal—an appeal to enable the Botanical Garden of the City of New York to assume its rightful place of leadership?

FREDERIC S. LEE





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